Mark Kruse Declaration

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

JOHN B. ADRAIN, Plaintiff, vs. VIGILANT VIDEO, INC., and THE CITY OF PORT ARTHUR, TEXAS, Defendants.	Case No. 2:10-cv-173 DECLARATION OF MARK KRUSE IN SUPPORT OF DEFENDANTS' JOINT MOTION FOR SUMMARY JUDGMENT

I, Mark Kruse, hereby declare as follows:

1. I offer this Declaration in support of Defendants' Joint Motion For Summary Judgment.

2. I am currently employed at Vigilant Video, Inc., as Vice-President of Engineering. My areas of expertise are software systems with special focus on software design and project management. I have been employed with Vigilant Video, Inc., for more than six years.

3. My experience is as follows:

Vigilant Video, Inc.

- Vice-President of Engineering, October, 2005, to present
- Began writing software test plans, designing client end-user interfaces, and software architecture enhancements for an existing video analytics software package.
- Evolved the design, interface, and implementation of an existing lightweight OCR application into our current production Enterprise system that is offered to the private and public sectors.
- Worked with strategic partners and employees to craft the hardware components, software interfaces, and data management utilities. This included working with development to refine our

OCR engine, refine our end user interface, refine our camera design, refine our DSP platform, and refine all ancillary applications under all of Vigilant Video.

Applied Materials / GKS

- May, 2000, to September, 2005
- Software Developer, Field Applications Engineer, Field Applications Engineer Manager
- Began with GKS writing software to extract and merge semiconductor data for a services–based yield enhancement group.
- After two years of writing software, GKS was acquired by Applied Materials and I switched focus to primarily deploying systems to end customers.
- Finally, managed three other applications engineers in three different geographic locations for the the Intel account under Applied Materials.

KLA–Tencor

- January, 1999, to August, 1999; January, 2000, to May, 2000
- Field Application Engineer
- Supported a software in Beta at a strategic account.
- Maintained server health and uptime through self–taught methods of UNIX and Oracle administration.

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4. I offer the following declaration testimony for purposes of the Defendants' motion for summary judgment.

5. After the patent reexamination process, all of Plaintiff's identified claims derive exclusively from a "digital" camera and "digital" image data.

6. It is my understanding from my review that Defendant Vigilant Video, Inc.'s purportedly infringing product / process involves neither a "digital" camera nor "digital" image data.

7. Summarized, Vigilant's camera system cannot contravene Plaintiff's patent claims for the following core reasons:

a. Vigilant's camera comprises a camera that outputs a purely analog data signal. It is my understanding from my review that Plaintiff's system, on the other hand, outputs a digital signal.

b. Vigilant's system performs no "image-data-to-image-data" comparison within any "space being monitored." It is my understanding from my review that Plaintiff's system, on the other hand, does precisely that.

c. Vigilant's system does not compare any camera data to other data generated by the same camera with the aid of any camera-generated, "reference" memory. It is my understanding from my review that Plaintiff's system, on the other hand, does precisely that.

d. Vigilant's system does not compare "pictures" to "pictures" to assess a pixel-by-pixel match. It is my understanding from my review that Plaintiff's system, on the other hand, does precisely that.

8. It is my understanding from my review that Plaintiff's claims against Vigilant depend exclusively upon a digital camera, *viz.*: a camera that outputs a digital signal. Under Plaintiff's original patent, Claims 2, 7, 8, and 9 each proved derivative of (or dependent upon) Claim 1. Now, under

Plaintiff's reexamined patent, amended Claims 2, 7, 8, and 9 each remains expressly derivative of (or dependent upon) new Claim 51. And, in turn, Claims 3, 6, and 10 now derive from (or depend directly upon) amended Claims 2 and 9.

9. Depicted graphically, the original and revised claim relationships appear as follows:

Original Claim Relationship Among Claims 1–3 and 6–10

<table>
<tr><td colspan="4">Claim 1</td></tr>
<tr><td colspan="2">Claim 2
(dependent upon 1)</td><td>Claim 7
(dependent upon 1)</td><td>Claim 8
(dependent upon 1)</td><td>Claim 9
(dependent upon 1)</td></tr>
<tr><td>Claim 3
(dependent upon 2)</td><td>Claim 6
(dependent upon 2)</td><td></td><td></td><td>Claim 10
(dependent upon 9)</td></tr>
</table>

Revised Claim Relationship
(after reexamination)

<table>
<tr><td colspan="4">Claim 51
(new)</td></tr>
<tr><td colspan="2">Claim 2
(amended to reference / dependent upon Claim 51)</td><td>Claim 7
(amended to reference / dependent upon Claim 51)</td><td>Claim 8
(amended to reference / dependent upon Claim 51)</td><td>Claim 9
(amended to reference / dependent upon Claim 51)</td></tr>
<tr><td>Claim 3
(dependent upon amended 2)</td><td>Claim 6
(dependent upon amended 2)</td><td></td><td></td><td>Claim 10
(dependent upon amended 9)</td></tr>
</table>

10. Claim 51 now confines Plaintiff's patent to a digital process; it incorporates the following descriptors: "a movably mounted digital camera adapted for receiving images of a space to be monitored for directly outputting digital image data," and "an interpreter for receiving said digital image data from the digital camera." As the reexamined patent makes plain with respect to the original patent, a narrowing of scope comprises the reexamined patent's reference to "digital," as that limiter did not previously exist.

11. It is my understanding from my review that Plaintiff's system depends upon the utilization of a digital camera that outputs a digital signal or data. It relays — or outputs — digital pixel data to an "interpreter," which, in turn, relays that digital pixel data to a "comparator" that, in turn, performs a pixel–by–pixel digital comparison utilizing stored pixelated digital image data (taken by the same camera) in a reference memory.

12. Vigilant's system, on the other hand, does not output any "digital" product or process like that utilized by Plaintiff. Rather, Vigilant's system utilizes an analog camera, *viz.*, a camera that outputs an analog NTSC signal of the picture taken of a license plate. The camera transmits that analog video signal to a digital signal processor for purposes of producing a distinct binary computer code associated with each image after optical character recognition has been performed.

13. Whenever the Vigilant system later conducts a license plate comparison, it compares an ASCII–based character string with another ASCII–based character string that has been input to a remote data base — in other words, a code–to–code comparison devoid of any "image" comparisons. Comparisons occur only between alphanumeric character strings, not "images," because the Vigilant analog system output does not utilize digital "image" elements such as pixels or graphics for comparisons. Rather, Vigilant's OCR process converts pure analog output — video images of a license plate — into an ASCII character string of alphanumeric components, following which the Vigilant system compares the ASCII characters against an external data base of ASCII characters, none of which originate with Vigilant's camera system.

14. Furthermore, no "on–board" comparison of data occurs within the Vigilant camera system. Vigilant's system does not compare any captured image data or image elements from the

camera to an existing storage of reference image data from the same camera. Stated differently, Vigilant's system does not utilize the digital pixel–by–pixel comparison methodology employed by Plaintiff's system. Instead, it utilizes an external data base — a data base that does not derive from any camera — to compare ASCII codes to ASCII codes.

15. Defendant Vigilant Video, Inc.'s product / process neither utilizes nor incorporates "image data from [a] reference memory."

16. Claim 51 utilizes a "reference memory" component, *viz.*: "a reference memory for storing reference image data" and "a comparator connected for comparing image data from the interpreter to image data from the reference memory according to selected comparison criteria . . . [.]"

17. I have reviewed the *Markman* Order and it is my understanding that the Court declared the phrase "reference memory" as connoting "data storage that stores data related to an image that is used as a reference for comparison." The recently–completed patent reexamination process did not alter that construction.

18. It is my understanding from my review that Plaintiff's system employs a "reference memory" of digital image data. Plaintiff's monitoring system stores image data taken from the camera in a (presumably non–volatile) reference memory. The image data goes into the interpretor, and then into the reference memory or to the comparator.

19. It is my understanding from my review that Plaintiff's system then utilizes a comparator to utilize and process that same image data. The comparator compares image data from the reference memory to image data from the interpretor, both of which obtain their image data from the same camera.

20. It is my understanding from my review that Plaintiff's monitoring system generates all of its image data from the camera; it neither utilizes nor incorporates any imported image data. Plaintiff's system stores image data in the reference memory that the system later uses as a reference for comparisons with the other image data taken before the comparison. Stated differently, Plaintiff's monitoring system compares contemporaneously–taken image data from the camera to image data previously taken from the same camera. The comparison proceeds pixel by pixel, as that process remains the only way to compare images within Plaintiff's system. Plaintiff's system creates, and then utilizes, its own "reference memory" for comparisons.

21. Vigilant's system does not employ a "reference memory"; rather, it utilizes an external data base comprised entirely of non–digital ASCII data. Vigilant's system does not store any reference image data in memory because it utilizes no image data — *viz.*, pixel–by–pixel — comparisons.

22. Rather, Vigilant's system compares data from the camera in a non–image format to data from an external database — also in non–image format — that did not come from that, or any other, camera. Any comparisons occur via comparisons of ASCII–character strings only — and ASCII–character strings do not constitute "image data." Moreover, the remote database that Vigilant's system utilizes for comparisons maintains only ASCII–character–string data, not reference "image data" of any sort. And Vigilant neither creates nor operates that remote database.

23. Vigilant's system does not compare image data to image data, but, instead, compares code data (alphanumeric ASCII strings) to code data from an external database. It never compares

images via a pixel-to-pixel comparison between data. the Vigilant system simply compares totally different elements.

I declare under penalty of perjury that the foregoing is true and correct.

DATED: November 30, 2012

Mark Kruse